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April 18, 1997

Nick Magriples, CHMM, On-Scene Coordinator
Removal Action Branch
Mail Stop 211
2890 Woodbridge Avenue
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Edison, NJ 08837

Dear Mr. Magriples:

I have reviewed the "Removal Site Evaluation for the Cornell Dubilier Electronics Site" dated January 9, 1997 (attached) and found disturbing the paragraph which states:

> "Contaminant migration appears to be occurring, or has previously occurred, into an unnamed tributary to the Bound Brook and nearby wetlands. Although the surface water in this area is not used for potable purposes, it is reported that several of the downstream water bodies are utilized as freshwater fisheries. The guideline for PCBs in ambient water, which reflects an additional lifetime cancer risk of 1 in 100,000 results at a level of 0.00079 ug/1. PCB aroclor-1254 and aroclor-1248 have been detected in the adjoining stream at 20 ug/1 and 24 ug/1, respectively. It is not known at this time if the contamination has migrated further downstream.

With respect to this information, several questions are raised to which I request that you respond:

1. What is the exposure risk to the citizens of South Plainfield, Piscataway, Middlesex Borough and Bound Brook as a result of the off site migration of PCB's and other contaminants from the site into Bound Brook?

2. What down stream testing will be done by the EPA to evaluate the extent of contamination downstream?

3. What containment measures are being undertaken to prevent further off site/downstream contamination?

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4. Is there a need to advise the public concerning the consumption of freshwater fish from downstream water bodies?

Your assistance in this matter will be most appreciated.

Very Truly Yours;

Bob Smith

cc: Mayor Dan Gallagher, South Plainfield
Mayor Helen Merolla, Piscataway
Mayor Ron Dobies, Middlesex
Mayor Frank Gilly, Bound Brook
Ralph Magliette, Chairperson, Piscataway Environmental Commission

Enclosure: Jan. 9, 1997 EPA Evaluation.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE: JAN 09 1997

SUBJECT: Removal Site Evaluation for the Cornell-Dubilier Electronics Site (AKA: Hamilton Industrial Park), South Plainfield, Middlesex County, New Jersey

FROM: Nick Magriples, CHMM, On-Scene Coordinator
Removal Action Branch

TO: File

Site I.D. No.: GZ
REMOVAL ASSESSMENT RANKING: 7

I. INTRODUCTION

The Removal and Emergency Preparedness Program received a request from the U.S. EPA Monitoring and Assessment Branch, formerly the Surveillance and Monitoring Branch, to evaluate the Cornell-Dubilier Electronics Site for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Removal Action consideration.

There has been a release of CERCLA designated hazardous substances at the Cornell-Dubilier Electronics Site, which is defined as a facility under section 101(9) of CERCLA. Elevated levels of PCBs, lead, and cadmium are present in the soil at the Cornell-Dubilier Electronics Site and in the sediment of a nearby unnamed tributary to Bound Brook due to past disposal practices.

According to an evaluation completed by the Agency for Toxic Substances and Disease Registry (ATSDR) on September 19, 1996, PCBs are present in the surface soil in the fenced area at levels of public health concern. Due to the magnitude of the PCB contamination, ATSDR recommended that exposure to the soil in the fenced area be stopped immediately. Based on this information, the South Plainfield Health Department subsequently recommended that the truck driving school no longer be allowed to operate in the fenced area. The school's temporary operating permit was revoked by the local zoning board in early October due to the discovery of the elevated levels of PCBs in the surface soil. Currently, the gate to the fence remains locked.

An evaluation completed by ATSDR on October 30, 1996 stated that the remainder of the Site, which contains significantly lower PCB levels in the surface soil than the fenced area, poses a public health concern through chronic exposure to on-site workers and trespassers. ATSDR recommended to prevent exposure to the PCBs in the surface soil.

(1)

portion of the facility, and one from the floodplain on the eastern side.

The sample locations were chosen judgmentally to locate and identify potential sources of contamination. Two samples were collected from each location. The first sample was collected from a depth of 0 to 3 inches for health assessment purposes. In the vacant field, the second sample was taken from a depth of 3 to 12 inches. On the Site roadway, the second sample (except for one location) was collected beneath the gravel/stone layer at depths ranging from 3 to 18 inches. The one exception was collected from the soil within the gravel/stone layer due to the thickness of the stone layer at that location. The deeper samples were collected to ascertain whether PCBs were present before the stone/gravel was laid on the roadway and also to differentiate between potential dust migration pathways at the surface. The soil samples were analyzed for Target Compound List (TCL) PCBs, and Target Analyte List (TAL) lead, cadmium, silver, chromium, and mercury. The sediment sample was analyzed for total organic carbon (TOC) and grain size distribution.

On July 16, 1996 the U.S. EPA START and a subcontractor, under the direction of the OSC, excavated six test pits and collected 18 soil samples (see Appendix A, Figure 3). Of the six test pits, two were located within the fenced area, two southwest of the fenced area between the fence and the tree line, and two northeast of the fenced area. Except for one test pit, two samples were collected from each of the test pits. Six soil samples were also collected at a depth of one foot or less from within the fenced area where the truck driving school operated.

The sample locations were chosen judgementally to locate and identify potential sources of contamination. Test pit locations were based on historical aerial photographs and excavated to a maximum depth of nine feet or the water table, whichever was reached first. Twelve of the soil samples were collected from depths ranging from 2 to 9 feet within the excavated test pits. The remainder of the samples were collected at depths of one foot or less. All of the soil samples were analyzed for TCL PCBs, and TAL lead, cadmium, silver, chromium, and mercury.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

On June 8, 1994, an EPA pre-remedial contractor collected samples from four surface water, six surface soil (0 to 1 foot depth), and four sediment locations (see Appendix A, Figure 4). All samples were analyzed for TCL organic compounds and TAL inorganic constituents. Table 1 presents a summary of the maximum analytical concentrations detected during this sampling event.

(2)

of the Site near the stormwater discharge. PCB aroclor-1248, which has not been detected in any other sample collected at the Site, was detected at this same location at 24 ug/l. 1,2-dichloroethene and trichloroethene were detected at the same surface water location at 100 ug/l and 2 ug/l, respectively. With respect to heavy metals, the maximum values detected were: arsenic (15.6 ug/l), cadmium (14.5 ug/l), chromium (25.7 ug/l), copper (89.5 ug/l), lead (180 ug/l), mercury (0.23 ug/l), silver (3.8 ug/l), and zinc (994 ug/l).

On October 13, 1994, an EPA pre-remedial contractor collected two additional sediment samples from the unnamed tributary to Bound Brook (see Appendix A, Figure 5 and Figure 6). The purpose of the sampling was to determine background sediment conditions. The samples were analyzed for TCL organic compounds and TAL inorganic constituents.

The sample locations were upstream of the previous sediment sample location that had revealed a PCB aroclor-1254 concentration of 550 mg/kg. One sample, located 620 feet upstream from the previous sample revealed an estimated total PCB concentration of 700 ug/kg. The second sample, located 1,350 feet upstream of the previous sample revealed an estimated total PCB concentration of 350 ug/kg.

On February 29, 1996, an EPA pre-remedial contractor collected additional soil (0 to 6 inches in depth) and sediment samples from the unnamed tributary to Bound Brook (see Appendix A, Figure 7 and Figure 8). The purpose of the sampling was to concurrently determine background soil and sediment conditions. The samples were analyzed for TCL organic compounds and TAL inorganic constituents. Except for background soil samples collected near Spicer Avenue, the sample locations were generally similar to those taken during the previous two sampling events in 1994. The analytical results of the two background soil samples for PCB aroclor-1254 were 1,500 ug/kg and 800 ug/kg.

The analysis of air samples collected by the Superfund Technical Assessment and Response Team (START) on April 23, 1996 did not detect PCBs at a detection limit of 3.3 ug/m^3. Lead was detected in two of the samples at 7.2 ug/m^3 and 3.5 ug/m^3. It should be noted that the higher of the two lead concentrations was from the background sample, 80 feet upwind of the fence perimeter.

Table 2 presents a summary of the PCB aroclor-1254, lead, and cadmium analytical results from the soil samples collected by START on June 27, 29, and July 16, 1996, but not including those from the test pits. Figure 2 and Figure 3 in Appendix A depict these sample locations.

water contamination has been detected that may be originating, at least in part, from the Site.

Contaminant migration appears to be occurring, or has previously occurred, into an unnamed tributary to the Bound Brook and nearby wetlands. Although the surface water in this area is not used for potable purposes, it is reported that several of the downstream water bodies are utilized as freshwater fisheries. The guideline for PCBs in ambient water, which reflects an additional lifetime cancer risk of 1 in 100,000 results at a level of 0.00079 ug/l. PCB aroclor-1254 and aroclor-1248 have been detected in the adjoining stream at 20 ug/l and 24 ug/l, respectively. It is not known at this time if the contamination has migrated further downstream.

High levels of hazardous substances have been documented in soils, largely at or near the surface, that have migrated (§300.415(b)(2)(iv)). Due to the widespread PCB contamination at the Site, and since the extent of contamination is not known, it is difficult to ascertain whether on-site soil contamination in a particular area is present due to migration from another area. However, with the dusty conditions generally present at the Site and the unpaved ground surface, it is possible that surficial contamination is being transported offsite by vehicular traffic or dispersion into the air. The relatively dense foliage surrounding the vacant field may limit migration offsite via air dispersion, however, this limitation would be reduced during the winter and early spring months.

Contamination in the surface water and sediments may be present as a result of storm water runoff, direct discharge, or ground water migration. Elevated levels of hazardous substances at the rear of the property, near the foot/bike path, appear to have a direct surface runoff pathway into the stream.

Weather conditions exist that may cause hazardous substances to migrate or be released (§300.415(b)(2)(v)). During windy and dry conditions at the Site, visible amounts of dust are generated from the ground surface. Surficial contaminants can thus become airborne and migrate towards the on-site population or offsite. Heavy rains can increase runoff from the Site towards the stream and wetlands adjoining the property.

Upon the request of the OSC, ATSDR issued a Record of Activity (AROA) on April 4, 1996, based on the PCB and lead analytical data from the samples collected on June 8, 1994, and observations of a possible completed exposure pathway at the Site. The AROA (see Appendix B) stated that although a potential health threat was present via inhalation, the concentrations did not appear to represent acute, immediate health threats. This was based on the assumption that the maximum levels detected were uniformly distributed throughout the site soils, that dust and dirt

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Table 4: Comparison of Analytical Results From Surface Water Samples Collected at the Cornell-Dubilier Electronics Site with EPA Ambient Water Quality Criteria, June 8, 1994

Compound	Concentration (ug/l)	AWQC (ug/l) chronic	AWQC (ug/l) acute
aroclor-1248	24	0.014	-
aroclor-1254	20	0.014	-
Analyte			
cadmium	14.5	1.1	3.9
copper	89.5	12	18
lead	180	3.2	82
zinc	994	110	120

Table 5 presents a comparison of the analytical results from the sediment samples collected on June 8, 1994 with "Guidelines for the Protection and Management of Aquatic Sediment Quality in Ontario". The severe Effect Level (SEL) represents a concentration that would be detrimental to the majority of benthic species.

Table 5: Comparison of Analytical Results From Sediment Samples Collected at the Cornell-Dubilier Electronics Site with Ontario Guidelines, June 8, 1994

Compound	Concentration (mg/kg)	SEL (mg/kg)
aroclor-1254	550	340
benzo(g,h,i)perylene	4.5	3.2
chrysene	5.1	4.6
dibenz(a,h)anthracene	2.2	1.3
indeno(1,2,3-cd)pyrene	4.7	3.2
Analyte		
cadmium	24.8	10
copper	219	110
lead	552	250

A sediment sample was collected for total organic carbon (TOC) and grain size analyses on June 27, 1996 in the general area where the highest lead and PCB concentrations were previously detected. The TOC content of the sample was 840 mg/kg. The sample also revealed the presence of mostly sand and gravel (91% total content). Although only one sediment sample was collected, and it was not from the exact location as the sample previously collected, the results provide an indication of potentially increased bioavailability of the contaminants due to the relatively low TOC and large grain size. In this condition, only a relatively small portion of the PCBs will remain sorbed to the

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Table 1: Summary of Analytical Results From Soil Samples Collected at the Cornell-Dubilier Electronics Site, June 8, 1994

Compound	Concentration (mg/kg)
1,2-dichloroethane	.019E
trichloroethene	.082E
phenanthrene	2.2
anthracene	.380
fluoranthene	5.0
pyrene	2.9
benzo(a)anthracene	1.8
chrysene	2.3
benzo(b)fluoranthene	2.5
benzo(k)fluoranthene	1.6
benzo(a)pyrene	1.9
indeno(1,2,3-cd)pyrene	1.4
dibenz(a,h)anthracene	.460
benzo(g,h,i)perylene	1.1

Compound	Concentration (mg/kg)
PCB aroclor-1254	1,100

Analytes	Concentration (mg/kg)
arsenic	25.7
cadmium	36.7
chromium	78.6
lead	2,200
mercury	2.9
silver	26.7

The maximum PCB and lead concentrations noted in Table 1 were collected from within the fenced area. PCB aroclor-1254 was also detected in each of the five additional soil samples collected from the Site in concentrations ranging from 6.9 mg/kg to 110 mg/kg, with the average concentration being 42.6 mg/kg. The maximum concentration (110 mg/kg) of PCBs detected from these five samples was located in the floodplain to the east of the Site.

A sediment sample collected from the stream near the rear of the property, downslope from the location where the waste material was noted on the surface, revealed the presence of PCB aroclor-1254 at 550 mg/kg. 1,2-dichloroethene (51 ug/kg), trichloroethene (120 ug/kg), and lead (552 mg/kg) were also detected in this same sediment sample. In general, the remainder of the organic compounds noted in the soil samples listed in Table 1 were also detected in the sediment samples, however at mostly higher concentrations.

The maximum concentration of PCB aroclor-1254 detected in surface water samples was 20 ug/l. This sample was collected northeast